

REMARKS

Claims 1-3 and 5-24 are pending in the application upon entry of this amendment. Claims 1 and 10 are amended herein to incorporate the features of claim 4, now canceled. Favorable reconsideration of the application, as amended, is respectfully requested.

I. REJECTION OF CLAIMS 1, 4 AND 10 UNDER 35 USC §112, 1st ¶

Claims 1, 4, and 10 stand rejected under 35 USC §112, first paragraph, as not being enabled by the specification. Applicants respectfully traverse this rejection for at least the following reasons.

Specifically, the Examiner indicates that the expressions *N.b1* and *2.N.b1* lack adequate written description. The Examiner indicates it is not clear whether the term is a multiplication, summation or another expression.

Applicants respectfully submit that those having ordinary skill in the art will appreciate that the "." in the expressions is the commonly known mathematical operator representing a multiplication. Withdrawal of the rejection is respectfully requested.

II. REJECTION OF CLAIMS 1-3, 5, 7, 8, 10-12 AND 14 UNDER 35 USC §102(b)

Claims 1-3, 5, 7, 8, 10-12 and 14 stand rejected under 35 USC §102(b) based on Hamagishi. Applicants respectfully request withdrawal of the rejection for at least the following reasons.

Claims 1 and 10 have been amended to incorporate the features of claim 4, which has not been rejected on the present grounds. Accordingly, withdrawal of the rejection is respectfully requested.

III. REJECTION OF CLAIMS 4, 6, 9 AND 13 UNDER 35 USC §103(a)

Claims 4, 6, 9 and 13 stand rejected under 35 USC §103(a) based on *Hamagishi*. Applicants respectfully request withdrawal of this rejection for at least the following reasons.

As noted above, claims 1 and 10 have been amended to incorporate the features of claim 4. Accordingly, the applicants will now address the Examiner's rejection of claim 4 in terms of amended claims 1 and 10.

Claims 1 and 10 now recite how the slits of each group are spaced apart with a first pitch $b1$ in a direction perpendicular to the slits, and the groups are spaced apart with a second pitch $b2$, in the direction perpendicular to said slits, substantially equal to $2.N.b1$. There are unique and non-obvious advantages to such a configuration not shown in the teachings of *Hamagishi*.

Specifically, the present invention describes how each group of slits may include two slits, for example, with the slits in each group being spaced with a pitch $b1$, wherein the pitch $b1$ is substantially the same as the pitch p of the pixel columns. (See, e.g., Spec., p. 12, In. 32 to p. 13, In. 2). Additionally, the groups of slits are spaced apart by pitch $b2$ which is equal to four times the pitch $b1$. (See, e.g., Spec., p. 13, Ins. 10-12 and Fig. 9a). This arrangement satisfies the expression that the second pitch $b2$ is substantially equal to $2.N.b1$ as recited in amended claims 1 and 10.

In such an arrangement, the slits of the barrier 21 (e.g., Fig. 9a) cooperate with the pixellation of the LCD 20 so as to define or create viewing regions labeled A to E (Fig. 10). In particular, image slices 1 and 2 are provided from one of the images and the image slices 3 and 4 are provided from the other of the images. Thus, the first and second images are visible in the viewing regions D and B, respectively. (See, e.g., Spec., p. 14, Ins. 11-14).

An advantage associated with such an arrangement is that compared with a conventional display, the angle between the views is approximately doubled. In the

case of an autostereoscopic display, the allows the optimum viewing distance or viewing window plane to be approximately half the distance away from the display compared with the conventional arrangement. (See, e.g., Spec., p. 14, Ins. 28-33). Additionally, the contribution to crosstalk from neighboring viewing regions is reduced because 50% of the stray light is from the same image source. The presently claimed arrangement also allows higher resolution and higher utilization of light. (See, e.g., Spec., p. 15, Ins. 1-8).

In another embodiment, the present invention teaches that a barrier 21 may include groups of three slits and the groups of slits are spaced six times the pitch $b1$. This arrangement also satisfies the expression recited in amended claims 1 and 10 and has similar advantages. (See, e.g., Spec., p. 16, Ins. 7-17).

Hamagishi describes a stereoscopic display wherein a left eye image is projected from a projector 1L, and a right eye image is projected from a projector 1R. The images projected from the projectors 1L and 1R pass through light transmitting portions 21 in the light shading means 2a, thus, pairs of right and left eye images are formed on a dispersion panel 2b.

As the Examiner admits, *Hamagishi* does not teach a second pitch $b2$ substantially equal to $2.N.b1$ as recited in amended claims 1 and 10. Applicants respectfully disagree, however, that such feature represents merely a design choice since such a modification would have involved a mere change in the size of a component as suggested by the Examiner.

Applicants respectfully submit that a second pitch $b2$ being substantially equal to $2.N.b1$ as recited in amended claims 1 and 10 does not represent a mere change in the size of a component. Rather, it represents a completely different relationship between the groups of slits and the respective pitches. As pointed out above, a second pitch $b2$ substantially equal to $2.N.b1$ as recited in amended claims 1 and 10 enables the angle between the views to be approximately doubled while the contribution to crosstalk from neighboring viewing regions is reduced. The claimed arrangement also allows higher

resolution and higher utilization of light. In other words, the present invention does not represent merely a change in size of a parallax barrier. Rather, the present invention represents a particular relationship between the groups of slits and respective pitches which results in advantages neither taught nor suggested in *Hamagishi*.

For at least the above reasons, withdrawal of the rejection of claims 1, 10, and the claims dependent therefrom, is respectfully requested.

IV. REJECTIONS OF CLAIMS 15-24 UNDER 35 USC §103(a)

Claims 15-24 stand rejected under 35 USC §103(a) based on *Hamagishi* in view of *Taniguchi*, *Isono et al.* and/or *Moseley et al.* Applicants respectfully request withdrawal of these rejections for at least the following reasons.

Claims 15-24 each depend indirectly from amended claim 10 and can be distinguished over the teachings of *Hamagishi* for at least the same reasons discussed above. Moreover, *Taniguchi*, *Isono et al.* and/or *Moseley et al.* do not make up for the above-discussed deficiencies in *Hamagishi*. Thus, applicants respectfully request that the rejections be withdrawn.

V. CONCLUSION

Accordingly, all claims 1-3 and 5-24 are believed to be allowable and the application is believed to be in condition for allowance. A prompt action to such end is earnestly solicited.

Should the Examiner feel that a telephone interview would be helpful to facilitate favorable prosecution of the above-identified application, the Examiner is invited to contact the undersigned at the telephone number provided below.

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Should a petition for an extension of time be necessary for the timely reply to the outstanding Office Action (or if such a petition has been made and an additional extension is necessary), petition is hereby made and the Commissioner is authorized to charge any fees (including additional claim fees) to Deposit Account No. 18-0988.

Respectfully submitted,

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